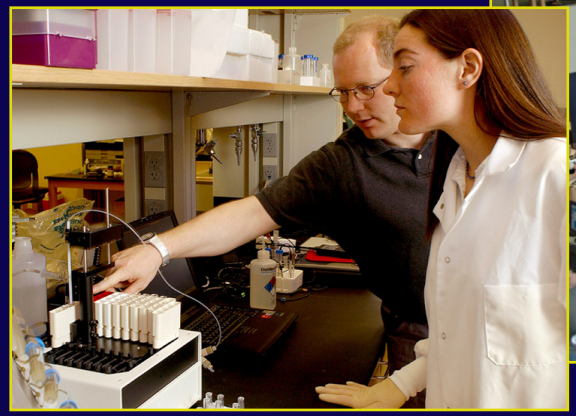
# Georgia Institute of Technology


## Presentation by President G. Wayne Clough

to the Irish Secretary of Commerce
July 13, 2005

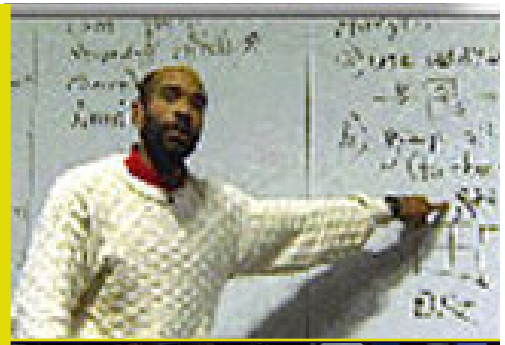
# Georgia Tech vision and mission

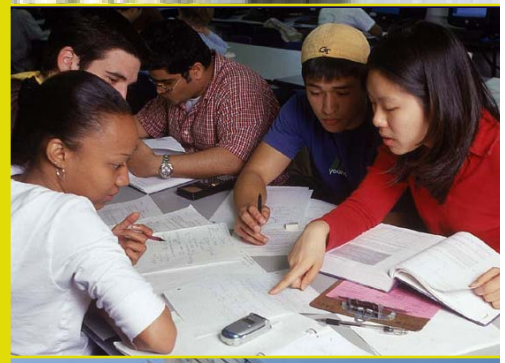
Georgia Tech will define the technological research university of the 21st century and educate the leaders of a technologically driven world.

# Achieving the vision

- Excellence and innovation
- Best students, faculty, staff
- Leading-edge facilities, services
- Quality live-work-play campus
- Distinctive sense of place
- Community and industry collaboration
- Optimal technology transfer



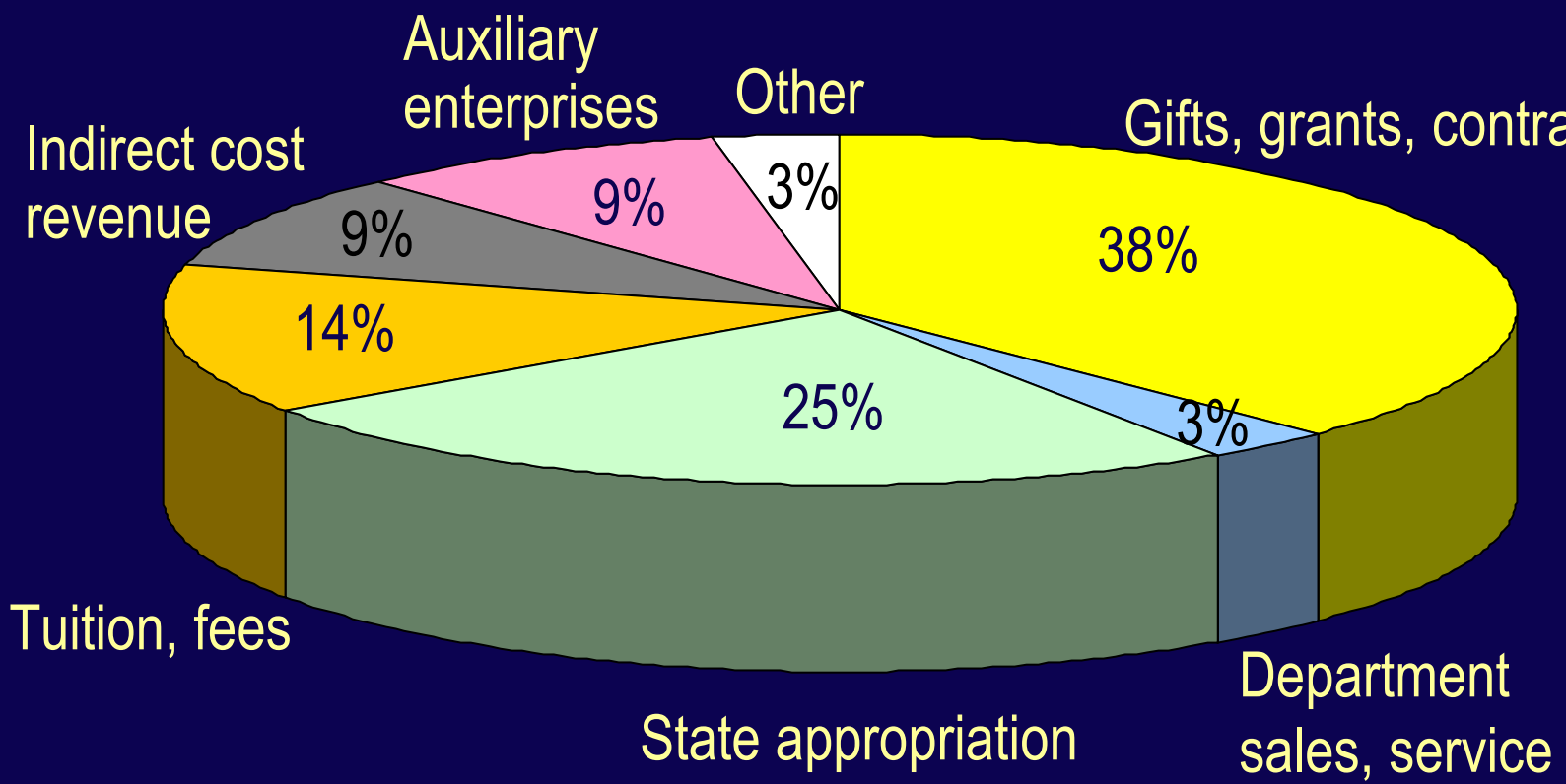



# Georgia Tech: Recognized for excellence

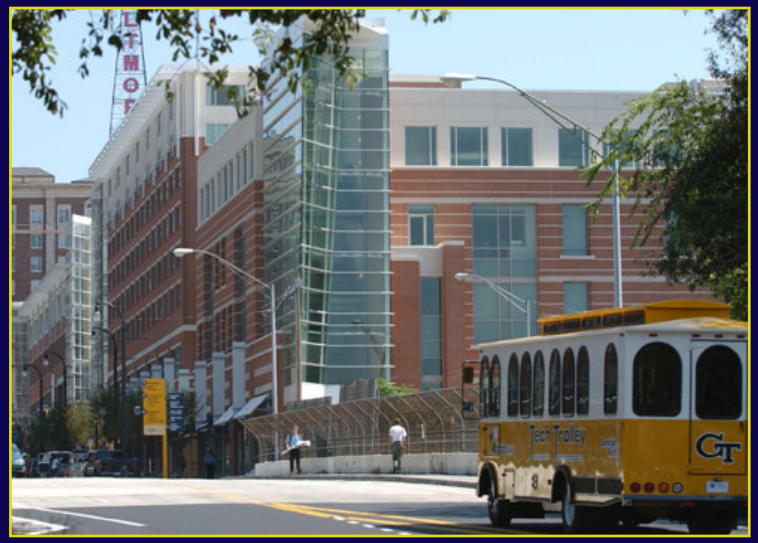
- Among top 10 public universities in the nation.
- Among top 5 engineering schools in the nation.
- Nationally ranked for computing, architecture, management, and selected science and liberal arts programs.
- SAT score among nation's top 5 public universities.
- 15 national centers of excellence.

# Sources of Institute funding

## $919.4 million anticipated for FY 2005-06



# Four campuses on three continents




Georgia Tech-Atlanta


Georgia Tech-Lorraine


Georgia Tech-Savannah

Georgia Tech-Singapore

# Students

## 16,800 students enrolled:

- 11,500 under-graduates
- 5,300 graduate students
- 16,200 in Atlanta
- Growing enrollment: added 3,800 students in the past 10 years.

Georgia Tech is a national leader in graduating engineers, including minorities & women.

# Faculty

- 971 academic faculty
- 1,041 research faculty
- 115 endowed chairs and professorships
- 28 National Academy members
- 101 NSF CAREER Awards (2nd highest in the nation)
- 7 PECASE Awards

# Academic programs

Six colleges:

- Architecture
- Computing
- Engineering
- Management
- Sciences
- Ivan Allen College of Liberal Arts

Interdisciplinary degrees:

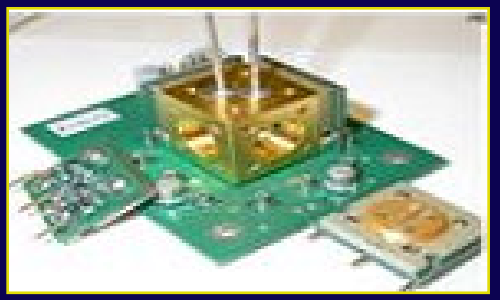
- Bioengineering
- Bioinformatics
- Human-computer interaction
- Quantitative computational finance
- Digital media

# Research thrusts

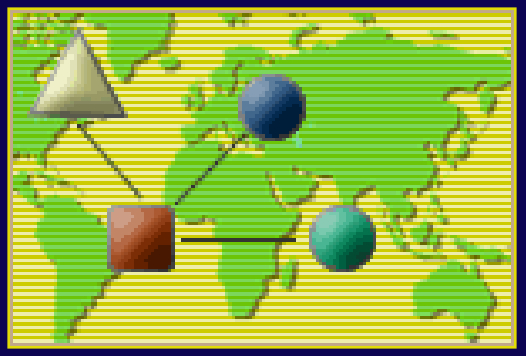
Sustainable technology

Nanotechnology

Biotechnology/ nanomedicine



Microelectronics/ telecommunications

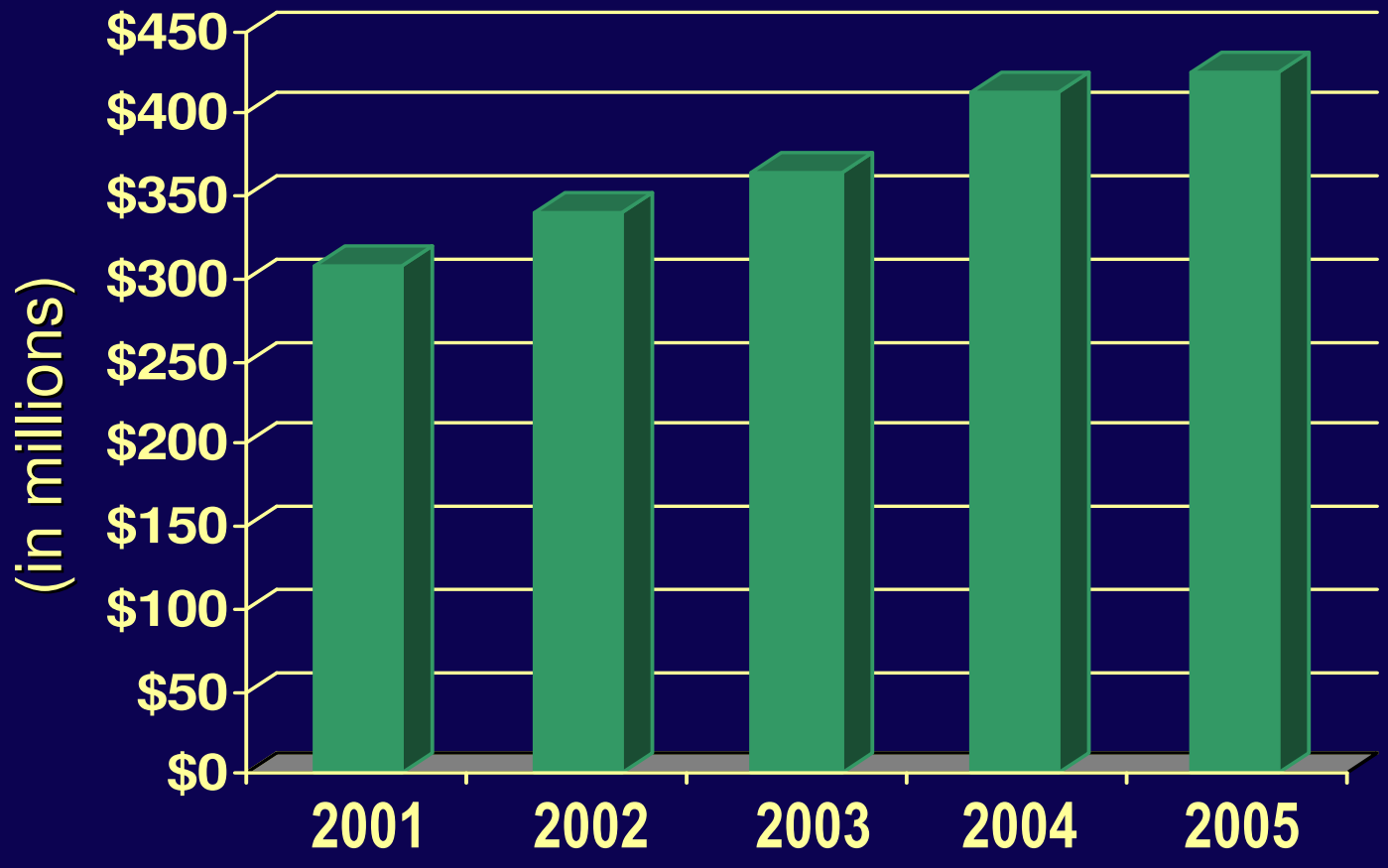


Logistics

Photonics/optics

Manufacturing

# Annual research expenditures




Expenditures doubled in past decade.

# Building a quality, sustainable campus

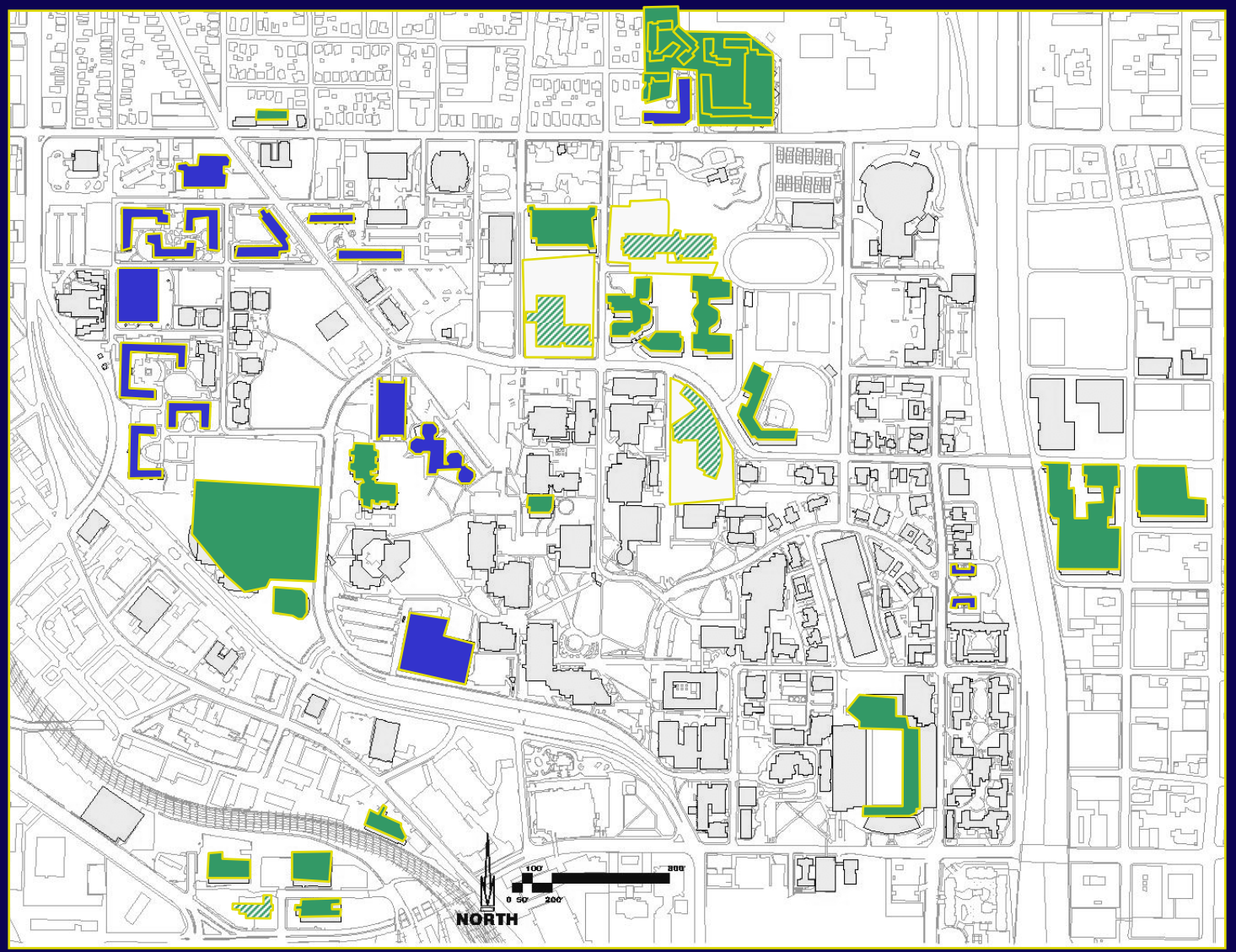
3.5 million gross sq ft of new, renovated space.

# Recent construction

1992-96 Olympic era construction

1996-2005

In process



# Biotechnology Complex

Molecular Science
& Engineering Bldg

Nanotechnology
Research Center site

Petit Biotechnology Bldg

U.A. Whitaker Bldg

Ford Environmental Science & Technology Bldg

# Nanotechnology Research Center

- 188,000 gross sq ft facility.
- 30,000 sq ft of cleanroom space.
- Nation's first cleanroom facility to be deliberately designed to serve nanomedicine, biotechnology.
- Three "cleanest" classes of labs (10, 100, 1000).
- Flexible configuration will meet differing research needs.

# Georgia Tech-Emory



- Joint academic programs
  - Biomedical engineering: B.S., M.S., Ph.D.
  - Bioengineering: M.S., Ph.D.
  - Bioinformatics: Ph.D.
- Parker H. Petit Institute for Bioengineering and Bioscience
  - Georgia Tech/Emory Center for the Engineering of Living Tissues
- Emtech Bio
  - Commercialization of research
  - Incubation, other services for start-up companies

# Georgia Research Alliance

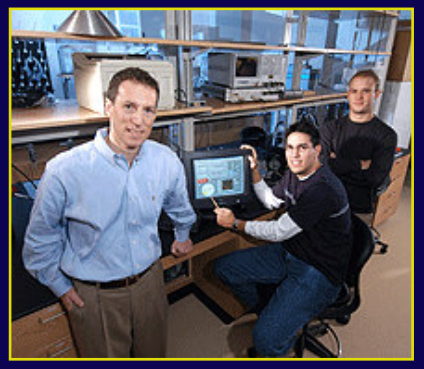
- Public-private partnership of
  - Georgia's six research universities
  - Private industry
  - State government


- Efforts focus on
  - Endowed chairs for eminent scholars (over 50).
  - R&D labs and equipment.
  - Attracting research centers of excellence to Georgia.
  - Technology transfer from universities.
- State seed investment of $400 million has been leveraged to attract nearly $2 billion in federal/private funds.
- Biotechnology is an area of emphasis.

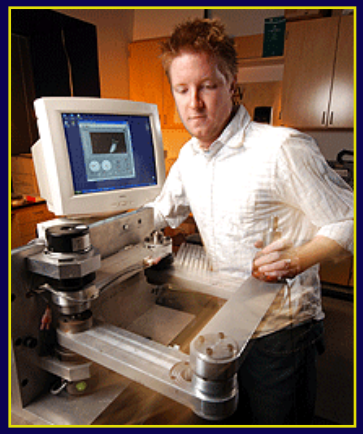
# Other partnerships

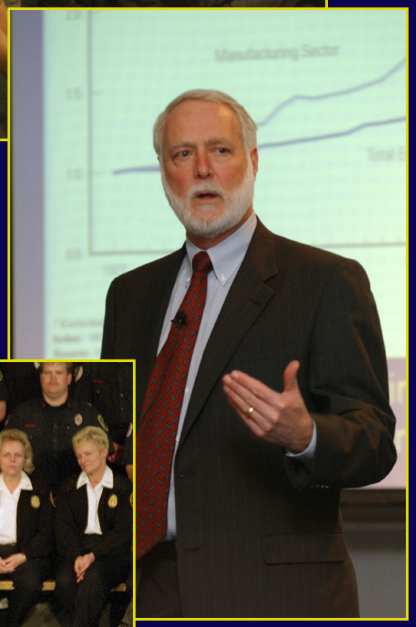

- National Lambda Rail
  - High-capacity high-speed fiberoptic research network connecting member universities.
- National Nanotechnology Infrastructure Network:
  - 13 universities supported by the National Science Foundation focus on nanotechnology research and education.
- Georgia Cancer Coalition
  - Supports research, clinical, and education initiatives.

# Interfacing with industry



- Industry-sponsored research:
  - No. 4 in the nation in research volume.
  - Many research centers have industry partners.
  - Georgia Tech Research Institute conducts $100 million annually in applied research for external clients.
- Economic Development & Technology Ventures:
  - VentureLab
  - Georgia Tech Commercialization Services
  - Advanced Technology Development Center
  - Economic Development Institute






# Tech's national policy presence

- President's Council of Advisors on Science & Technology
- National Science Board
- Council on Competitiveness
- National Innovation Initiative
- Sam Nunn Policy Forum